

DRILL HOLES

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BORDER REV. DATE: June 1, 2004

PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a Pedestrian activated Hazard Identification Beacon (H.I.B.) along MD 117 (W.Diamond Ave) at the Southbound I-270 On Ramp in Montgomery County. MD 117 (W.Diamond Ave) is assumed to run in an east-west direction.

II. INTERSECTION OPERATION

- The Hazard Identification Beacon is to be activated by pedestrians pushing the pushbuttons to cross the southbound I-270 on Ramp. Upon pushing the pushbutton, the Red LED indication on the pedestrian education sign will flash in unison with the H.I.B. The Flashing RED indication will assure the pedestrian that the H.I.B. is operating. At all other times the Hazard Identification Beacon shall be dark.
- A pole mounted "G" size cabinet with relay package shall be installed at this intersection.

III. SPECIAL NOTES

- The Contractor shall be responsible for terminating all signal cables to the appropriate terminals and shall properly label each cable.
- All controller cabinet wiring will be performed by Montgomery County Forces. Contact Kamal Hamud at (240) 777-8761 seventy-two hours in advance of intended work.
- The contractor must notify Mr. Ed Rodenhizer at least 3 weeks in advance of the installation of the R10-4(1)Mod. "Pedestrian sign with Red LED indications", to assure enough time to fabricate the sign. The contractor is to bring the wiring to the sign, the SHA signal shop will make the connections to the Red LED indications.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

The contacts for Montgomery County and SHA are as follows:

Ms. Anyesha Mookherjee
Assistant District Engineer - Traffic
Phone: (301) 513-7318

Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
Phone: (410) 787-7630

Mr. Vernon Stinnett
Assistant District Engineer - Maintenance
Phone: (301) 513-7304

Mr. Bob Ricketts
Signal Shop (Mont Co.)
240-777-8760

Mr. Victor Grafton
Assistant District Engineer - Utility
Phone: (301) 513-7350

Mr. Sonny Bailey
Manager, Sign Shop Operations
410-787-7670

Mr. Kamal Hamud
Mont. County TMC Center
240-777-8761

The power company representative is:

Mr. Steve Custer
PEPCO Customer Design
201 W Guide Dr.,
Rockville, MD 20850
Phone: 301 548-4333

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY S.H.A..

| ITEM NO. | DESCRIPTION | QUANTITY |
|----------|---|----------|
| 9000 | Relay package | 1 EA |
| 9037 | Cabinet "G" type - pole mount | 1 EA |
| 9571 | Sheet aluminum signs to consist of: (mast arm or pole mount) | 14 SF |
| | R10-4(1) mod "PUSH BUTTON TO ACTIVATE WARNING FLASHERS / RED INDICATION WILL WILL FLASH WHEN FLASHERS ARE OPERATING/ Led Light / STAY ALERT" sign, (9"x12") (Note: Red Indication and sign to be installed by SHA Signal Shop). | 2 EA |
| | W11-1(2) "HIKER BIKER TRAIL CROSSING" sign sign, (30" x 30") | 1 EA |
| | W13-4 "ACROSS RAMP" sign, (36"x24") | 1 EA |

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

| ITEM NO. | DESCRIPTION | QUANTITY |
|----------|--|----------|
| 1003 | Maintenance of traffic per assignment. | 1 EA |
| 2002 | Test Pit Excavation | 3 C.Y. |
| 6001 | Standard type A combination curb and gutter 12" gutter pan 8" depth. | 65 L.F. |
| 6002 | 5" concrete sidewalk. | 600 S.F. |
| 6003 | Detectable warning surfaces for curb ramps. | 36 S.F. |
| 8001 | 12" LED signal head section. | 2 EA |
| 8009 | Breakaway pedestal pole (14') | 1 EA |
| 8009 | Breakaway pedestal pole (10') | 1 EA |
| 8009 | Breakaway pedestal pole (10') cut to 5'. | 1 EA |
| 8024 | Remove and dispose of existing material & equipment per assignment. | 1 EA |
| 8034 | Schedule 80 rigid PVC conduit up to 4" - bored. | 45 L.F. |
| 8036 | Schedule 80 rigid PVC conduit up to 4" - trenched. | 495 L.F. |
| 8038 | Install overhead or ground mounted sign. | 12.5 SF |
| 8040 | No. 6 AWG stranded bare copper ground wire. | 140 L.F. |
| 8044 | Furnish and install electrical handhole. | 4 EA |
| 8049 | Cut, clean, galvanize and cap traffic signal structure. | 1 EA |
| 8052 | Electrical cable - 3 conductor (No. 14 AWG). | 165 L.F. |
| 8053 | Electrical cable - 5 conductor (No. 14 AWG). | 420 L.F. |
| 8060 | Install controller and cabinet pole mount. | 1 EA |
| 8062 | Electrical cable 1-conductor No. 2 AWG THHN | 240 L.F. |
| 8063 | Non-audible pedestrian pushbutton. | 2 EA |

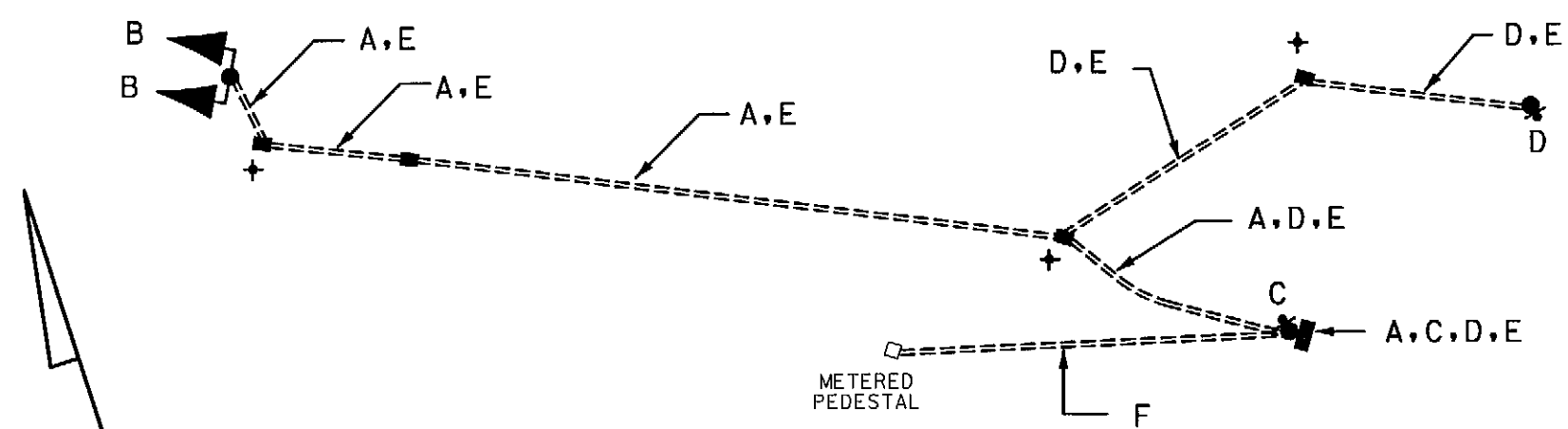
C. EQUIPMENT TO BE REMOVED

There is no signal equipment to be removed for this project.

PHASE CHART

| | | |
|-------------------------------|------|------|
| | 1 | 2 |
| | (Y) | (Y) |
| NORMAL OPERATION | DARK | DARK |
| PEDESTRIAN CROSSING OPERATION | FL/Y | FL/Y |

WIRING DIAGRAM



WIRING KEY

- A - 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- B } 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- D }
- E - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- F - 3-1 CONDUCTOR ELECTRICAL CABLE (NO. 2 A.W.G.) FOR UNDERGROUND SERVICE BY PEPCO
- + - GROUND ROD

TOD NO: XX354-16
SHA NO: M0255A57/K57
MD 117 @ I-270 SB Ramp



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

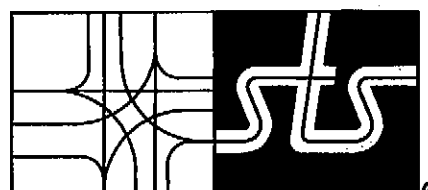
MD 117 (W.DIAMOND AVE)
AND I-270 SOUTHBOUND RAMP
GAITHERSBURG, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE DATE 10/29/2010 CONTRACT NO. XX3545168R

DESIGNED BY R.R.Z. COUNTY MONTGOMERY
DRAWN BY R.C. LOGMILE 15011711.58
CHECKED BY R.C. TMS NO. J803
F.A.P. NO. TOD NO.

TS NO. 4774 DRAWING NO. 2 OF 2 SHEET NO. OF



STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy., NW
Glen Burnie, MD 21061

Ph (410) 590-5500
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590061.DGN T-75

PLOTTED: \$DATE\$TIME\$
FILE: \$FILE\$